

United States Department of Agriculture National Agricultural Statistics Service

Idaho Potatoes



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Released: December 10, 2009 Media Contact: Vince Matthews

IDAHO RUSSET POTATO SIZE AND GRADE SUMMARY – 2009 CROP

The statistics in this publication were obtained from the 2009 Potato Objective Yield Survey. USDA's National Agricultural Statistics Service would like to thank all growers who allowed the enumerators to dig samples in their fields. Without the voluntary cooperation of the farmers themselves, obtaining valid and timely agricultural statistics would be much more difficult. Because the samples of potatoes were dug by hand, the size and grade statistics in this document do not reflect harvesting or handling damage.

The survey results showed for the 2009 crop, 23.2 percent of the russet potatoes were at least ten ounces, down from 28.1 percent that reached that size in 2008. Of the Russet potatoes in the 2009 sample, 76.6 percent met the 2.0 inch or 4 oz. minimum size and grade requirements for U.S. No. 1 potatoes, up from 70.3 percent last year. Processing grade and U.S. No. 2 potatoes, with a 1.5 inch minimum, accounted for 17.3 percent of the 2009 crop.

PROCEDURE

The 2009 Potato Objective Yield Survey consisted of 268 samples located throughout Idaho in fields selected in an unbiased and random manner. The selection of sample fields was based on all known potato acreage planted in 2009, with each acre having an equal chance of being chosen. As a result, growers with large acreages were more likely to be selected to participate in this survey. Several sample fields with varieties other than Russet were selected, but only the reports with Russet potatoes were used to compile the data in Tables 1 and 2. For each sample field, two plots were systematically located using computer generated random numbers. Each plot consisted of a twenty-foot section of a row. Digging of all samples occurred immediately preceding harvest or when all vines had died and growth of the tubers was no longer possible. Three hills of potatoes from each twenty-foot row section were carefully dug, counted, weighed, and then graded according to U.S.D.A. standards. Potatoes less than 1.5 inches in diameter were excluded from this procedure. To measure the harvest loss, post-harvest gleanings were taken for every fourth sample. The gleaning area consisted of two 3-by-6-foot plots, located five paces and five row space equivalents beyond the plots where the potato hills were dug. All potatoes and potato pieces, except whole potatoes less than 1.5 inches in diameter, were collected, weighed, and graded. Geographic distribution of the 2009 sample fields is shown in the following table.

| AREA | COUNTIES | NUMBER OF SAMPLE PLOTS |
|-----------------------|------------------------------------------------------------------------------|---------------------------|
| Southwest | Ada, Adams, Boise, Canyon, Elmore, Gem, Owyhee, Payette, Valley & Washington | 32 |
| South Central | Blaine, Camas, Cassia, Gooding, Jerome, Lincoln, Minidoka & Twin Falls | 56 |
| Eastern | Bannock, Bear Lake, Bingham, Bonneville, | 133 |
| | Franklin, Jefferson, Madison, Oneida & Power | |
| Eastern Seed Counties | Butte, Caribou, Clark, Custer, Fremont, Lemhi & Teton | 47 |

Find agricultural statistics for your county, State, and the Nation at www.nass.usda.gov.

TABLE 1 – IDAHO RUSSET POTATOES: SIZE AND GRADE – 2009 CROP $^{1/}$

| 105 1 1VD GD 105 | 1½" | 15/8" | 17/8" | 2" or | 6-7 | 7-8 | 8-9 | 9-10 | 10-11 | 11-12 | 12-13 | 13-14 | 14 oz | |
|----------------------------------------------|-------|-------|-------|-----------|------|-----|----------|----------|-------|-------|-------|-------|-------------|-------|
| AREA AND GRADE | 15/8" | 17/8" | 2" | 4-6 Oz | Oz | Oz | oz | OZ | Oz | OZ | Oz | OZ | and over | Total |
| | | | | | |] | Percenta | ages (%) | | | | | | |
| SOUTH CENTRAL COUNTIES | | | | | | | | | | | | | | |
| U.S. No. 1 (2" min) ^{2/} | - | - | - | 22.6 | 9.4 | 9.0 | 8.5 | 6.9 | 5.3 | 4.2 | 3.7 | 2.4 | 8.2 | 80.2 |
| U.S. No. 2 or Processing Usable (1 ½ min) 3/ | 0.7 | 5.0 | 4.4 | 1.1 | 0.5 | 0.4 | 0.4 | 0.4 | 0.5 | 0.4 | 0.2 | 0.1 | 1.6 | 15.7 |
| Cull 4/ | 0.1 | 0.4 | 0.3 | 1.0 | 0.4 | 0.2 | 0.3 | 0.1 | 0.2 | - | 0.1 | 0.1 | 0.9 | 4.1 |
| TOTAL | 0.8 | 5.4 | 4.7 | 24.7 | 10.3 | 9.6 | 9.2 | 7.4 | 6.0 | 4.6 | 4.0 | 2.6 | 10.7 | 100.0 |
| EASTERN COUNTIES | | | | | | | | | | | | | | |
| U.S. No. 1 (2" min) ^{2/} | _ | _ | _ | 27.6 | 9.3 | 8.6 | 6.4 | 5.8 | 4.5 | 2.8 | 2.3 | 2.2 | 5.8 | 75.3 |
| U.S. No. 2 or Processing Usable (1 ½ min) 3/ | 1.2 | 6.1 | 5.0 | 1.0 | 0.8 | 0.4 | 0.4 | 0.3 | 0.5 | 0.2 | 0.3 | 0.3 | 1.0 | 17.5 |
| Cull 4/ | 0.2 | 0.5 | 0.5 | 1.8 | 0.7 | 0.6 | 0.4 | 0.5 | 0.4 | 0.1 | 0.1 | 0.1 | 1.3 | 7.2 |
| TOTAL | 1.4 | 6.6 | 5.5 | 30.4 | 10.8 | 9.6 | 7.2 | 6.6 | 5.4 | 3.1 | 2.7 | 2.6 | 8.1 | 100.0 |
| EASTERN SEED COUNTIES | | | | | | | | | | | | | | |
| U.S. No. 1 (2" min) ^{2/} | _ | _ | _ | 30.8 | 10.4 | 8.1 | 5.4 | 5.6 | 3.3 | 2.7 | 1.6 | 1.2 | 4.6 | 73.7 |
| U.S. No. 2 or Processing Usable (1 ½ min) 3/ | 1.1 | 6.8 | 6.4 | 0.9 | 0.3 | 0.5 | 0.1 | 0.5 | 0.4 | 0.5 | 0.5 | 0.2 | 1.4 | 19.6 |
| Cull ^{4/} | 0.1 | 0.5 | 0.6 | 2.4 | 0.7 | 0.4 | 0.3 | 0.4 | 0.2 | 0.3 | 0.1 | 0.1 | 0.6 | 6.7 |
| TOTAL | 1.2 | 7.3 | 7.0 | 34.1 | 11.4 | 9.0 | 5.8 | 6.5 | 3.9 | 3.5 | 2.2 | 1.5 | 6.6 | 100.0 |
| TOTAL OTHER COUNTIES | | | | | | | | | | | | | | |
| U.S. No. 1 (2" min) ^{2/} | _ | _ | _ | 26.8 | 9.5 | 8.6 | 6.8 | 6.1 | 4.5 | 3.1 | 2.6 | 2.1 | 6.3 | 76.4 |
| U.S. No. 2 or Processing Usable (1 ½ min) 3/ | 1.1 | 5.9 | 5.1 | 1.0 | 0.7 | 0.4 | 0.3 | 0.4 | 0.5 | 0.3 | 0.3 | 0.2 | 1.2 | 17.4 |
| Cull 4/ | 0.2 | 0.5 | 0.4 | 1.7 | 0.6 | 0.5 | 0.4 | 0.3 | 0.3 | 0.1 | 0.1 | 0.1 | 1.0 | 6.2 |
| TOTAL | 1.3 | 6.4 | 5.5 | 29.5 | 10.8 | 9.5 | 7.5 | 6.8 | 5.3 | 3.5 | 3.0 | 2.4 | 8.5 | 100.0 |
| 10 SOUTHWEST COUNTIES | | | | | | | | | | | | | | |
| U.S. No. 1 (2" min) ^{2/} | _ | _ | _ | 18.6 | 9.1 | 8.5 | 6.5 | 7.1 | 5.8 | 3.9 | 5.2 | 3.2 | 14.2 | 82.1 |
| U.S. No. 2 or Processing Usable (1 ½ min) 3/ | 0.9 | 3.4 | 3.3 | 1.3 | 0.7 | 0.4 | 1.1 | 0.7 | 0.5 | 0.3 | 0.4 | 0.1 | 1.6 | 14.7 |
| Cull ^{4/} | 0.1 | 0.5 | 0.5 | 0.8 | 0.2 | 0.3 | 0.2 | 0.1 | 0.2 | - | 0.2 | - | 0.1 | 3.2 |
| TOTAL | 1.0 | 3.9 | 3.8 | 20.7 | 10.0 | 9.2 | 7.8 | 7.9 | 6.5 | 4.2 | 5.8 | 3.3 | 15.9 | 100.0 |
| STATE | | | | | | | | | | | | | | |
| U.S. No. 1 (2" min) ^{2/} | _ | _ | _ | 26.5 | 9.6 | 8.6 | 6.8 | 6.1 | 4.5 | 3.2 | 2.7 | 2.1 | 6.5 | 76.6 |
| U.S. No. 2 or Processing Usable (1 ½ min) 3/ | 1.0 | 5.8 | 5.1 | 1.0 | 0.6 | 0.4 | | 0.4 | 0.5 | | | 0.2 | | 17.3 |
| Cull 4/ | 0.2 | 0.5 | 0.4 | 1.7 | 0.6 | 0.5 | 0.3 | 0.3 | 0.3 | | | 0.1 | | 6.1 |
| TOTAL | 1.2 | 6.3 | 5.5 | 29.2 | 10.8 | 9.5 | 7.5 | 6.8 | 5.3 | 3.6 | 3.1 | 2.4 | 8.8 | 100.0 |
| 1/ Gross yield basis. | | | | | | | | | | | | | | |

^{1/} Gross yield basis.

^{2/} Potatoes which meet the requirements for U.S. #1, as stated in U.S. Standards for Grades of Potatoes, USDA, Agricultural Marketing Service.

^{3/} Potatoes which meet the requirements for U.S. #2 or Process grade, as stated in U.S. Standards for Grades of Potatoes, USDA, Agricultural Marketing Service.

^{4/} Potatoes not meeting the requirements for U.S. #1, U.S. #2, or Process grade, as stated in U.S. Standards for Grades of Potatoes, USDA, Agricultural Marketing Service.

TABLE 2 – IDAHO RUSSET POTATOES: SIZE AND GRADE – 2008 CROP $^{1/}$

| | 1½" | 15/8" | 17/8" | 2" or | 6-7 | 7-8 | 8-9 | 9-10 | 10-11 | 11-12 | 12-13 | 13-14 | 14 oz | |
|---------------------------------------------------------|-------|------------|-------|-----------|------|------------|------------|---------|-------|-------|----------|-------|-------------|-------|
| AREA AND GRADE | 15/8" | - 17/8" | 2" | 4-6 oz | Oz | Oz | oz | OZ | Oz | oz | OZ | Oz | and over | Total |
| | | | | - | | | Percenta | ges (%) | | | | | | I |
| SOUTH CENTRAL COUNTIES | | | | | | | | 8 (/-/ | | | | | | |
| U.S. No. 1 (2" min) ^{2/} | _ | _ | _ | 16.5 | 7.4 | 7.1 | 6.7 | 6.1 | 4.3 | 4.3 | 4.4 | 3.0 | 12.5 | 72.3 |
| U.S. No. 2 or Processing Usable (1 ½ min) 3/ | 0.8 | 3.7 | 3.0 | 2.0 | 1.0 | 0.6 | 1.0 | 1.1 | 0.7 | 0.9 | 0.9 | 0.6 | 3.7 | 20.0 |
| Cull 4/ | 0.1 | 0.5 | 0.5 | 1.5 | 0.6 | 0.5 | 0.3 | 0.7 | 0.5 | 0.5 | 0.2 | 0.4 | 1.4 | 7.7 |
| TOTAL | 0.9 | 4.2 | 3.5 | 20.0 | 9.0 | 8.2 | 8.0 | 7.9 | 5.5 | 5.7 | 5.5 | 4.0 | 17.6 | 100.0 |
| | | | | | | | | | | | | | | |
| EASTERN COUNTIES | | | | | | | | | | | | | | |
| U.S. No. 1 (2" min) ^{2/} | - | - | - | 24.0 | 8.3 | 7.6 | 6.5 | 5.6 | 4.3 | 2.7 | 2.0 | 2.0 | 7.0 | 70.0 |
| U.S. No. 2 or Processing Usable (1 ½ min) 3/ | 1.1 | 5.5 | 4.5 | 1.8 | 0.9 | 0.6 | 0.7 | 0.8 | 0.7 | 0.6 | 0.5 | 0.4 | 2.2 | 20.3 |
| Cull 4/ | 0.2 | 0.9 | 0.8 | 2.9 | 0.9 | 0.7 | 0.7 | 0.9 | 0.4 | 0.2 | 0.3 | 0.2 | 0.6 | 9.7 |
| TOTAL | 1.3 | 6.4 | 5.3 | 28.7 | 10.1 | 8.9 | 7.9 | 7.3 | 5.4 | 3.5 | 2.8 | 2.6 | 9.8 | 100.0 |
| | | | | | | | | | | | | | | |
| EASTERN SEED COUNTIES | | | | | | | | | | | | | | |
| U.S. No. 1 (2" min) ^{2/} | 0.0 | 0.0 | 0.0 | 27.6 | 8.2 | 6.9 | 5.1 | 3.7 | 3.5 | 2.9 | 2.0 | 2.1 | 4.4 | 66.4 |
| U.S. No. 2 or Processing Usable (1 ½ min) 3/ | 1.6 | 8.5 | 7.1 | 1.8 | 0.5 | 0.5 | 0.3 | 0.9 | 0.2 | 0.1 | 0.6 | 0.2 | 1.0 | 23.3 |
| Cull ^{4/} | 0.1 | 0.9 | 0.5 | 1.7 | 0.8 | 0.8 | 0.5 | 0.8 | 0.7 | 0.6 | 0.5 | 0.1 | 2.3 | 10.3 |
| TOTAL | 1.7 | 9.4 | 7.6 | 31.1 | 9.5 | 8.2 | 5.9 | 5.4 | 4.4 | 3.6 | 3.1 | 2.4 | 7.7 | 100.0 |
| | | | | | | | | | | | | | | |
| TOTAL OTHER COUNTIES | | | | | | | | | | | | | | |
| U.S. No. 1 (2" min) 2" | 0.0 | 0.0 | 0.0 | 22.4 | 8.0 | 7.3 | 6.3 | 5.4 | 4.1 | 3.2 | 2.8 | 2.3 | 8.2 | 70.0 |
| U.S. No. 2 or Processing Usable (1 ½ min) ^{3/} | 1.1 | 5.5 | 4.5 | 1.9 | 0.8 | 0.6 | 0.7 | 0.9 | 0.6 | 0.6 | 0.6 | 0.5 | 2.5 | 20.8 |
| Cull 4/ | 0.2 | 0.8 | 0.7 | 2.2 | 0.8 | 0.6 | 0.5 | 0.8 | 0.5 | 0.4 | 0.3 | 0.2 | 1.2 | 9.2 |
| TOTAL | 1.3 | 6.3 | 5.2 | 26.5 | 9.6 | 8.5 | 7.5 | 7.1 | 5.2 | 4.2 | 3.7 | 3.0 | 11.9 | 100.0 |
| 10 SOUTHWEST COUNTIES | | | | | | | | | | | | | | |
| U.S. No. 1 (2" min) 2/ | | | | 20.4 | 0.4 | 5 . | 7 0 | 7.0 | | | | 2.2 | 10.6 | 00.1 |
| U.S. No. 2 or Processing Usable (1 ½ min) ^{3/} | - 1.0 | - | - | 20.6 | 9.4 | 7.6 | 7.0 | 7.2 | 4.6 | 5.2 | 4.6 | 3.3 | 10.6 | 80.1 |
| Cull 4/ | 1.0 | 4.5 | 3.3 | 1.5 | 0.3 | 0.4 | 1.0 | 0.9 | 0.3 | 0.3 | 0.6 | 0.5 | 2.0 | 16.6 |
| TOTAL | 0.1 | 0.4 | 0.4 | 0.8 | 0.3 | 0.3 | 0.3 | 0.1 | 0.1 | 0.1 | - 5 2 | - 2.0 | 0.4 | 3.3 |
| | 1.1 | 4.9 | 3.7 | 22.9 | 10.0 | 8.3 | 8.3 | 8.2 | 5.0 | 5.6 | 5.2 | 3.8 | 13.0 | 100.0 |
| STATE | | | | | | | | | | | | | | |
| U.S. No. 1 (2" min) ^{2/} | 0.0 | 0.0 | 0.0 | 22.3 | 8.1 | 7.3 | 6.3 | 5.4 | 4.2 | 3.2 | 2.8 | 2.4 | 8.3 | 70.3 |
| U.S. No. 2 or Processing Usable (1 ½ min) 3/ | 1.1 | 5.5 | 4.5 | 1.9 | 0.8 | 0.6 | 0.7 | 0.9 | 0.6 | 0.6 | 0.6 | 0.4 | 2.4 | 20.6 |
| Cull 4/ | 0.2 | 0.7 | 0.7 | 2.2 | 0.8 | 0.6 | 0.5 | 0.8 | 0.5 | 0.4 | 0.3 | 0.2 | 1.2 | 9.1 |
| TOTAL | 1.3 | 6.2 | 5.2 | 26.4 | 9.7 | 8.5 | 7.5 | 7.1 | 5.3 | 4.2 | 3.7 | 3.0 | 11.9 | 100.0 |
| 1/ Gross yield basis. | | | | | ··· | | | | | | ٠., | | | -00.0 |

^{1/} Gross yield basis.

^{2/} Potatoes which meet the requirements for U.S. #1, as stated in U.S. Standards for Grades of Potatoes, USDA, Agricultural Marketing Service.

^{3/} Potatoes which meet the requirements for U.S. #2 or Process grade, as stated in U.S. Standards for Grades of Potatoes, USDA, Agricultural Marketing Service.

^{4/} Potatoes not meeting the requirements for U.S. #1, U.S. #2, or Process grade, as stated in U.S. Standards for Grades of Potatoes, USDA, Agricultural Marketing Service.

TABLE 3 – IDAHO POTATOES: AVERAGE NUMBER OF HILLS PER ACRE BY TYPE 2008 & 2009 CROPS ^{1/}

| ТҮРЕ | NUMBER O | F SAMPLES | AVERAGE NUMBERS OF HILLS PER ACRE | | | |
|------------|----------|-----------|--------------------------------------|--------|--|--|
| | 2008 | 2009 | 2008 | 2009 | | |
| Reds 2/ | | 5 | | 17,938 | | |
| Whites | 10 | 9 | 12,682 | 12,142 | | |
| Yellows 3/ | | | | | | |
| Russets | 270 | 253 | 12,536 | 12,940 | | |
| TOTAL | 284 | 268 | 12,613 | 13,011 | | |

^{1/} Based on row measurements and counts in potato fields selected for objective yield samples.

TABLE 4 – IDAHO ALL POTATOES: QUANTITY LEFT IN FIELD AFTER HARVEST – 2008 & 2009 CROPS 1/2

| AREA | 2008 (| CROP | 2009 CROP | | | |
|---------------|-------------------|--------------|-------------------|--------------|--|--|
| AREA | NUMBER OF SAMPLES | CWT PER ACRE | NUMBER OF SAMPLES | CWT PER ACRE | | |
| Southwest | 9 | 25 | 8 | 19 | | |
| South Central | 15 | 29 | 13 | 17 | | |
| Eastern | 30 | 33 | 31 | 33 | | |
| Seed Co.'s | 12 | 28 | 11 | 24 | | |
| STATE | 66 | 30 | 63 | 26 | | |

^{1/} Potatoes left in the field at time of harvest. Based on counts in potato fields selected for post harvest samples.

TABLE 5 – SELECTED STATES LONG POTATOES (RUSSET & SHEPODY) - 2009 CROP $^{1/}$

| STATE | 1½" - 1 5/8" | 15/8" - 1 7/8 | 17/8" - 2" | 2" or 4-6 oz | 6-7 Oz | 7-8 oz | 8-9 Oz | 9-10 oz | 10-11` Oz | 11-12 oz | 12-13 oz | 13-14 Oz | 14 oz and over | Total |
|-------|--------------------|---------------------|------------------|--------------------|-----------|-----------|-----------|------------|--------------|-------------|-------------|-------------|----------------------|-------|
| | | | | | | | Percenta | ages (%) | | | | | | |
| ID 2/ | 1.2 | 6.3 | 5.5 | 29.2 | 10.8 | 9.5 | 7.5 | 6.8 | 5.3 | 3.6 | 3.1 | 2.4 | 8.8 | 100.0 |
| MN | 1.3 | 5.1 | 4.4 | 25.3 | 11.0 | 10.1 | 8.9 | 7.6 | 7.0 | 4.6 | 3.5 | 2.5 | 8.7 | 100.0 |
| ND | 0.9 | 6.2 | 5.1 | 29.2 | 10.4 | 10.3 | 8.9 | 6.9 | 5.4 | 3.4 | 3.5 | 2.2 | 7.6 | 100.0 |
| OR | 1.2 | 4.0 | 3.6 | 22.4 | 9.2 | 8.0 | 7.6 | 6.5 | 7.1 | 5.3 | 4.4 | 4.3 | 16.4 | 100.0 |
| WA | 0.5 | 2.8 | 3.0 | 21.7 | 9.6 | 8.8 | 8.4 | 7.2 | 6.8 | 5.5 | 5.1 | 3.7 | 16.9 | 100.0 |
| WI | 0.9 | 4.3 | 4.4 | 29.3 | 10.9 | 9.3 | 7.3 | 6.7 | 6.3 | 4.4 | 3.8 | 2.4 | 10.0 | 100.0 |

^{1/} Gross yield basis.

TABLE 6 – SELECTED STATES GRADING CATEGORIES - 2009 CROP $^{1/}$

| AREA AND GRADE | U.S. NO. 1 2 INCH MINIMUM 2/ | U.S. NO. 2 OR PROCESSING USABLE 3/ | CULL 4/ | TOTAL |
|-------------------|---------------------------------|---------------------------------------|---------|-------|
| LONG POTATOES | | Percenta | ges (%) | |
| ID 5/ | 76.6 | 17.3 | 6.1 | 100.0 |
| ME 6/ | 69.8 | 19.2 | 11.0 | 100.0 |
| MN | 79.9 | 15.0 | 5.1 | 100.0 |
| ND | 77.7 | 17.6 | 4.7 | 100.0 |
| OR | 79.6 | 15.8 | 4.6 | 100.0 |
| WA | 80.6 | 15.2 | 4.2 | 100.0 |
| WI | 86.2 | 13.5 | 0.3 | 100.0 |

^{1/} Gross yield basis.

^{2/} Insufficient number of reports to publish data for 2008.

^{3/} Insufficient number of reports to publish data.

^{2/} Russets only.

^{2/} Potatoes which meet the requirements for U.S. #1, as stated in U.S. Standards for grades of Potatoes, USDA, Agricultural Marketing Service

^{3/} Potatoes which meet the requirements for U.S. #2 or Processing grade, as stated in U.S. Standards for Grades of Potatoes, USDA, Agricultural Marketing Service.

^{4/} Potatoes not meeting the requirements for U.S. #1, U.S. #2, or Processing grade, as stated in U.S. Standards for Grades of Potatoes, USDA, Agricultural Marketing Service.

^{5/} Russet potatoes only.

^{6/} Percent of net yield – adjusted for field loss.